



Windows 10 Mobile (LUMIA)

Community Group

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# HOW TO INTEROP UNLOCK X50 LUMIA DEVICES

*MASS STORAGE METHOD*

## Requirements

- ❖ A Windows PC (Minimum: Windows 7 SP1 | Recommended: Windows 8 & above)
- ❖ Bootloader unlocked X50 Lumia device.

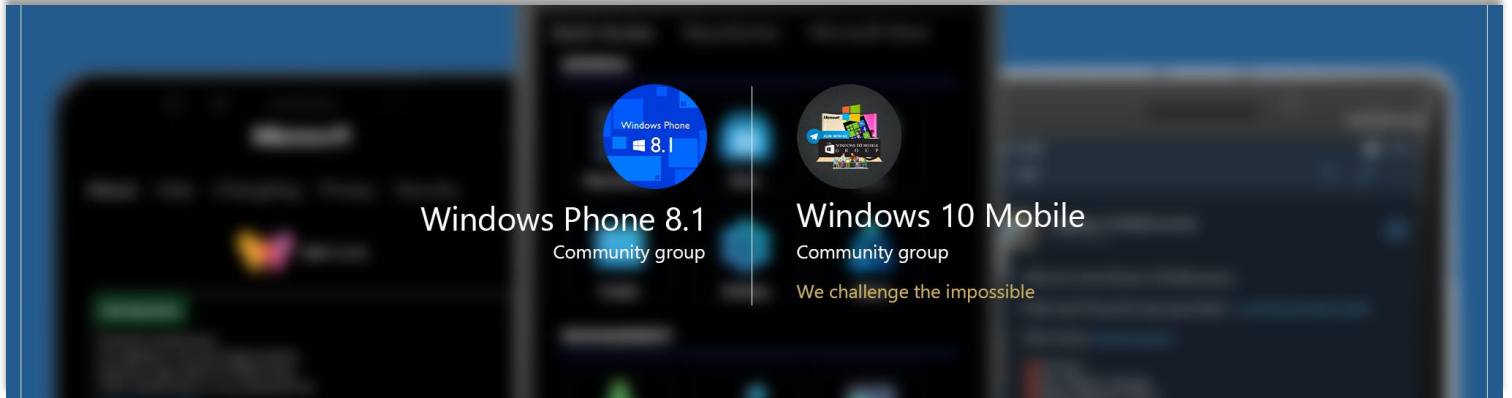


**W10M GROUP**

*We challenge the Impossible!*

INTEROP UNLOCK X50 LUMIA (MSM)

LAST UPDATE: 12/10/2023



## W10M Group YouTube Channel



YOUTUBE

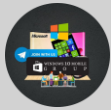
Apart from these documented Guides, we have started the roll up of **Video Versions** of each guide in our YouTube Channel.

Don't forget to **like** and **subscribe**!

**NOT AVAILABLE AT THE MOMENT**

NO DETAILS AVAILABLE YET

**N/A**



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*MASS STORAGE METHOD*



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## Introduction

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*What is this alternate method to unlock X50 Lumia?*

This method is an **alternate unlock method based on different requirements** to Interop Unlock X50 range Lumia devices.

*This and the other classic method both ultimately results the same but the process used in these two methods are different.*

*To whom this method is intended?*

This method is **created to those who wish to also bootloader unlock their device in addition to Interop Unlocking.**

So, if you are thinking to bootloader unlock your device sooner or later and is also waiting to interop unlock, then this is the guide for you!

*Which devices are supported?*

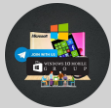
The device requirement remains; X50 range Lumia are only supported.

That means **only Lumia 550, 650, 950 & 950 XL are supported** by this guide.

*Pre-requirements?*

**Device must have access to Mass Storage mode/connection.**

*The most straightforward way to get that is to unlock the device bootloader.*



## Preparations



### Download Windows Phone Internals

(Recommended: WPI 2.9.2 OR higher)



GITHUB



W.U.T



MEGA

### Download & Install Windows Device Recovery Tool

(FOR DRIVER-PURPOSE ONLY)



MICROSOFT



W.U.T



MEGA

### Download NdtkSvc.dll file



MEGA



DROPBOX



NdtkSvc.dll

7/2/2014 10:40 PM

Application extens...

39 KB

### Download Interop Tools & Install in your Lumia.



GITHUB



W.U.T



MEGA



DROPBOX



InteropTools\_2.1.24.0\_arm\_LegacyReleas...

10/19/2021 1:52 AM

APPXBUNDLE File

16,801 KB

**NOTE:** Only Interop Tools **2.0.95 / 2.1.24** or newer Versions are compatible to use in this guide, **go with the latest!**

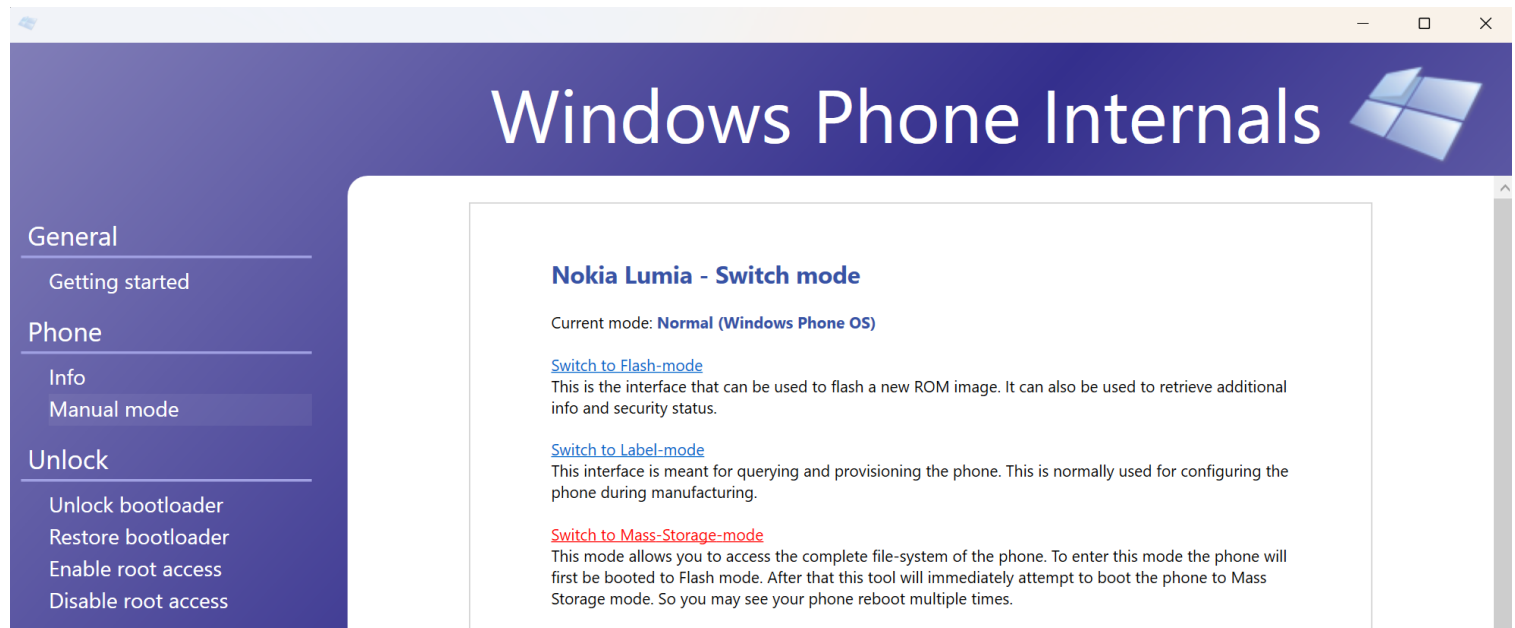


## Interop Unlock X50 Lumia (Mass Storage method)

> Connect your X50 Lumia to your Windows PC using a USB connection.

> Open Windows Phone Internals.

Go to **Manual Mode** section in the left menu and then click on [Switch to Mass Storage-mode](#).



> Then your phone will reboot out from Windows phone OS.

First, WPI will display that the device is first rebooting to Flash mode;



First rebooting phone to Flash mode...

Then, your device will reboot again and then will display that the device is now booting to Mass Storage mode;



And now rebooting phone to Mass Storage mode...

When the screen of the phone is black for a while, it could be that the phone is already in Mass Storage Mode, but there is no drive-letter assigned. To resolve this issue, open Device Manager and manually assign a drive-letter to the MainOS partition of your phone, or open a command-prompt and type: diskpart automount enable.



> Thence, usually following another reboot, your device will boot into Mass Storage Mode.

## Windows Phone Internals

### Nokia Lumia - Mass Storage mode

You can now access the file-system of the phone from your PC at drive **E:**

**Warning 1:** Be very careful with altering files. You can easily brick your phone, when you make invalid changes to the file-system of the phone.

**Warning 2:** If you try to access a partition and it cannot be accessed, then DO NOT FORMAT IT! Also when you are asked to format it, DON'T DO THAT!

**Warning 3:** While in Mass Storage Mode the phone-battery will not charge. When battery is low, the phone will automatically reboot to Normal Mode.

**Warning 4:** Never format or delete the boot-partitions! Take special care with the DPP partition. Do not format or delete this partition, because there is no known method to recover the phone after that (except with special equipment to access eMMC directly).

> Now, go to the **MainOS** partition of your device using File explorer in your PC.

Go to the below path;

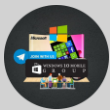
**MainOS → Windows → System32**

There; find the **DLL** file named **NdtkSvc**.

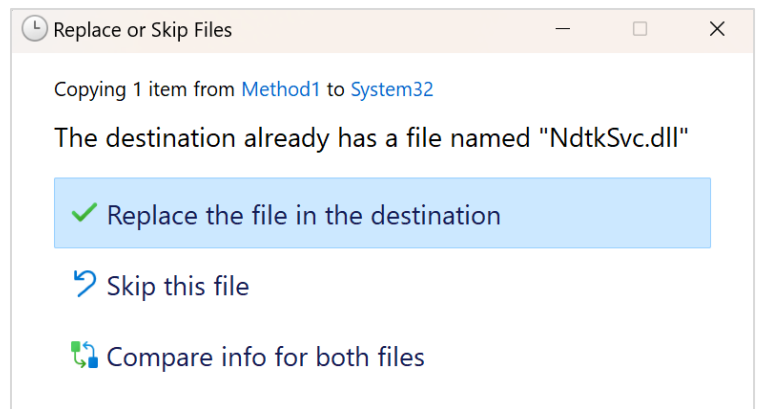
System32

MainOS (E:) > Windows > System32

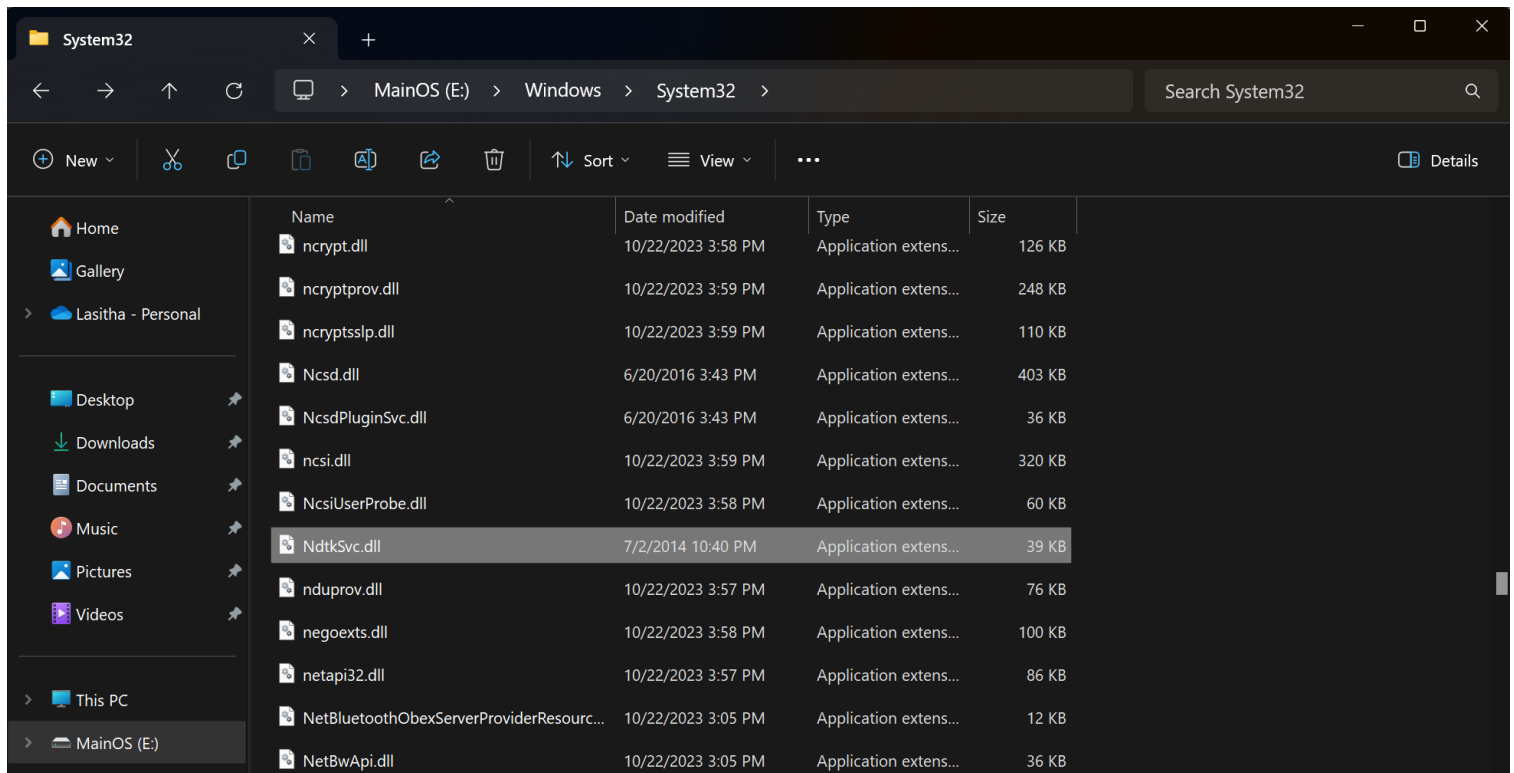
Name	Date modified	Type	Size
ncrypt.aii	10/22/2023 3:58 PM	Application extens...	126 KB
ncryptprov.dll	10/22/2023 3:59 PM	Application extens...	248 KB
ncryptssl.dll	10/22/2023 3:59 PM	Application extens...	110 KB
Ncsd.dll	6/20/2016 3:43 PM	Application extens...	403 KB
NcsdPluginSvc.dll	6/20/2016 3:43 PM	Application extens...	36 KB
ncsi.dll	10/22/2023 3:59 PM	Application extens...	320 KB
NcsiUserProbe.dll	10/22/2023 3:58 PM	Application extens...	60 KB
<b>NdtkSvc.dll</b>	6/20/2016 3:43 PM	Application extens...	131 KB
nduprov.dll	10/22/2023 3:57 PM	Application extens...	76 KB
negoexts.dll	10/22/2023 3:58 PM	Application extens...	100 KB
netapi32.dll	10/22/2023 3:57 PM	Application extens...	86 KB
NetBluetoothObexServerProviderResourc...	10/22/2023 3:05 PM	Application extens...	12 KB
NetBwApi.dll	10/22/2023 3:05 PM	Application extens...	36 KB
NetCellcoreMSRilProviderResources.dll	10/22/2023 3:58 PM	Application extens...	28 KB
NetCellcoreRilAdaptationProviderResour...	10/22/2023 3:58 PM	Application extens...	24 KB
NetCellcoreSMSProviderResources.dll	10/22/2023 3:58 PM	Application extens...	12 KB



> Replace the NdtkSvc DLL file [with the one you have downloaded in preparations.](#)



Now the new **NdtkSvc** file which we have replaced **should only size 39kb** instead of 13Xkb of the original one.



That's all to do in Mass Storage mode; so reboot out from it now by doing a Soft reset.

#### How to reboot back to normal mode

When the phone is in Mass Storage mode, it also exposes a special version of the Qualcomm Emergency Download mode. That mode supports reboot-commands. But those are blocked by Mass Storage mode, so this tool is not able to reboot your phone to normal mode. But this is not a problem. To escape from Mass Storage mode you have to perform a soft-reset. Older Lumia models require you to press and hold the volume-down-button and the power-button at the same time for at least 10 seconds. New Lumia models only require to press and hold the power-button for 10 seconds. This will trigger a power-cycle and the phone will reboot. Once fully booted, the phone may show strange behavior, like complaining about mail-accounts, showing old text-messages, inability to load https-websites, etc. This is expected behavior, because the time-settings of the phone are incorrect. Just wait a few seconds for the phone to get a data-connection and have the date/time synced. After that the strange behavior will stop automatically and normal operation is resumed.



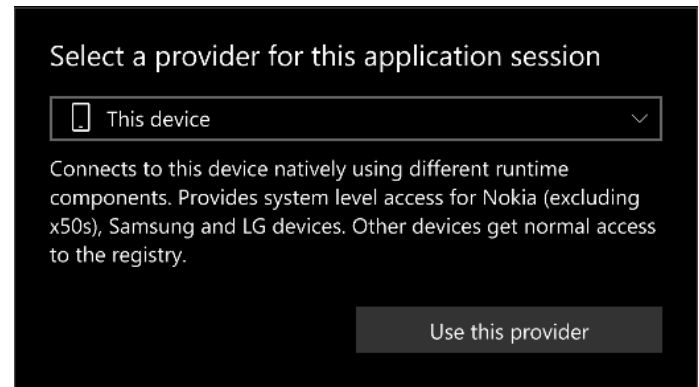


Once your device is fully booted back into Windows phone os;

> Open Interop Tools application.

> Choose **This Device** as the provider.

(Do not choose *This Device (Through provider extentions)*)

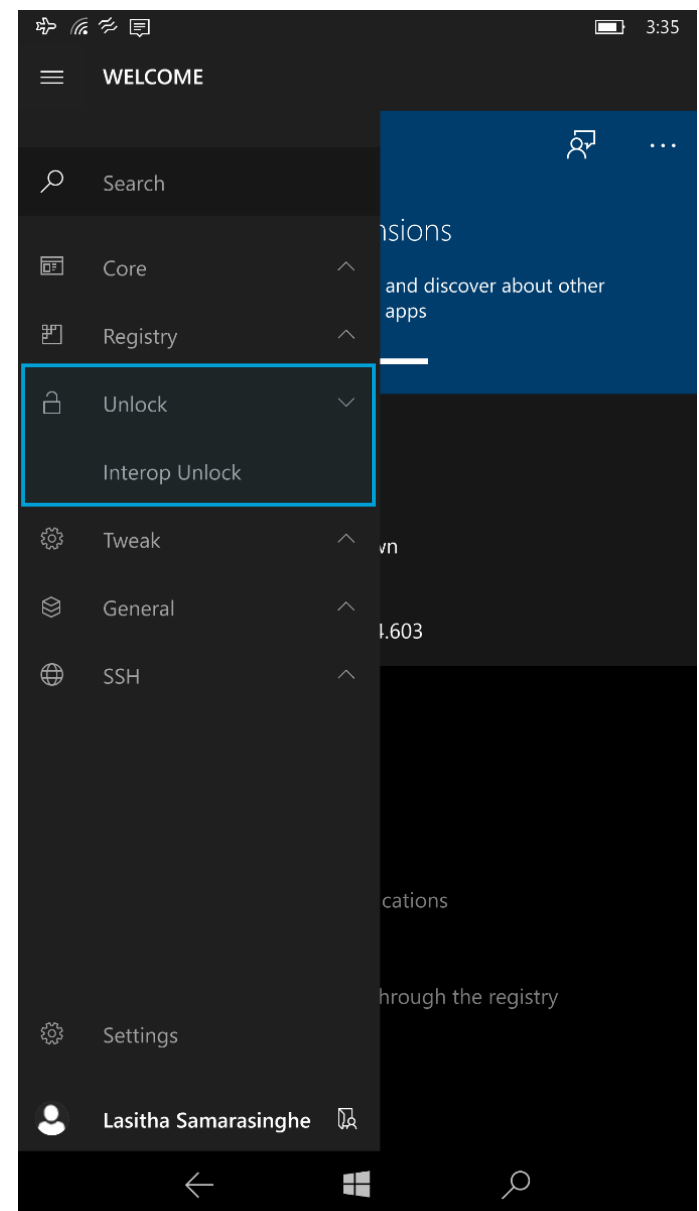


> Then, expand the the hamburger menu (Side menu)

Expand the **Unlock** section.

Click **Interop Unlock** entry.

That will take you to the Interop Unlock page.





> Now, activate only the first and the second toggles which are;

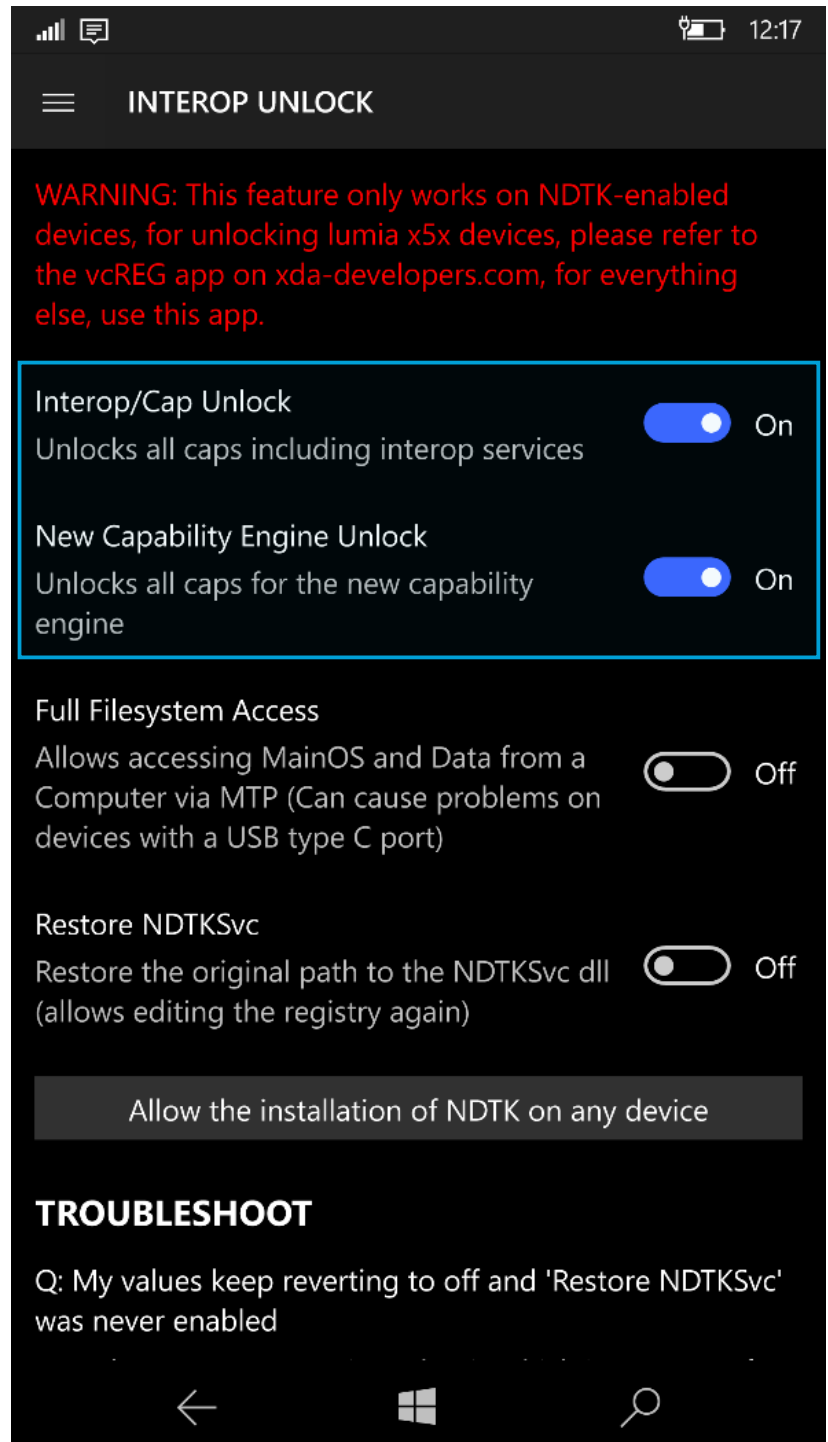
**Interop/Cap Unlock**

**New Capability Engine Unlock**

### WARNING!

DO NOT ENABLE **Restore NDTKSvc** TOGGLE IN ANY X50 SERIES LUMIA DEVICE.

That's all, you now have a completely Interop Unlocked X50 Lumia!





## Frequently Asked Questions (FAQ)

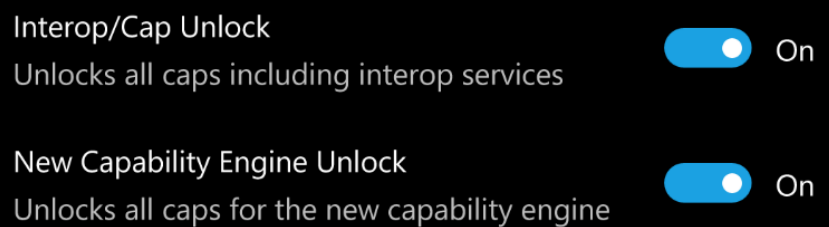
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**Q.** How to turn off Interop Unlock?

**A.** Once turned ON, it's tricky to turn it off, but **there is no reason to turn it OFF cause Interop Unlock doesn't create any problems with the OS or it's functionality.**

**Q.** If I hard reset the phone, will I lose Interop Unlock?

**A. Yes**, but if you want to re-enable, just go to Interop Unlock page and re-enable **Interop/Cap Unlock & New Capability Engine Unlock** toggles, all the previous steps involving Mass Storage mode aren't needed to re-do.



**Q.** If I re-flash the phone, will I lose Interop Unlock?

**A. Yes**, you will **lose it completely** and need to **do this guide from the beginning to have it back enabled.**

**Q.** What does Full FileSystem Access toggle do?

**A.** This an **optional** toggle, it is used to get limited read & write access to **C Drive (MainOS)** via the MTP connection to PC.

It is not very useful and can glitch the USB connection in USB Type-C devices as well so **it's not recommended to enable.**

**Q.** When enabling *Interop/Cap Unlock* and *New Capability engine unlock* in Interop tools, the app shows “**Working**” in status bar and seems stuck doing it, what is the cause?

**A.** You have to use Interop Tools **2.0.95** OR **2.1.24** version, all other older versions are not compatible.

**Q.** Interop/Cap Unlock toggle in Interop tools is **turned off after a reboot**, but other toggles are turned ON, is this an issue?

**A. NO**, you don't have to worry about it if that happened, the unlock is still enabled.



## End notes

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- This Mass Storage X50 Unlock method requires Bootloader Unlock.
- DO NOT Skip any steps!
- After Interop Unlocked, you can then use any Interop Tools application version you want.

## Credits

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- ✓ Gustave Monce for Interop Tools

That is all for this Guide!

# THANK YOU!!

*Lasitha Samarasinghe*

